

# United States Patent and Trademark Office



APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,280	11/18/2003	Rainer Gerathewohl	DKT03102	6057
7590 02/04/2005			EXAMINER	
Borg Warner Inc.			BONCK, RODNEY H	
Patent Department			ART UNIT	PAPER NUMBER
Powertrain Technical Center			ARTUNII	PAPER NUMBER
3800 Automation Ave, Ste. 100			3681	
Auburn Hills, MI 48326-1782			DATE MAILED: 02/04/2005	5

Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)			
	10/716,280	GERATHEWOHL ET AL.			
<b>V</b> Office Action Summary	Examiner	Art Unit			
\	Rodney H. Bonck	3681			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR THE MAILING DATE OF THIS COMMUNICAT  - Extensions of time may be available under the provisions of 37 after SIX (6) MONTHS from the mailing date of this communica  - If the period for reply specified above is less than thirty (30) day  - If NO period for reply is specified above, the maximum statutory  - Failure to reply within the set or extended period for reply will, b  Any reply received by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b).  Status	CION.  CFR 1.136(a). In no event, however, may a retion.  s, a reply within the statutory minimum of thirty period will apply and will expire SIX (6) MON by statute, cause the application to become ABA	ply be timely filed  (30) days will be considered timely.  THS from the mailing date of this communication.  NDONED (35 U.S.C. § 133).			
_	19 November 2002				
<ul> <li>1) Responsive to communication(s) filed on <u>18 November 2003</u>.</li> <li>2a) This action is FINAL.</li> <li>2b) This action is non-final.</li> </ul>					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is					
closed in accordance with the practice u					
Disposition of Claims					
4)  Claim(s) 13-24 is/are pending in the app 4a) Of the above claim(s) is/are w 5)  Claim(s) is/are allowed. 6)  Claim(s) 13-24 is/are rejected. 7)  Claim(s) is/are objected to. 8)  Claim(s) are subject to restriction	ithdrawn from consideration.				
Application Papers					
9)⊠ The specification is objected to by the Ex 10)⊠ The drawing(s) filed on <u>08 March 2004</u> is Applicant may not request that any objection Replacement drawing sheet(s) including the 11)⊠ The oath or declaration is objected to by	s/are: a) ☐ accepted or b) ☒ objecto to the drawing(s) be held in abeyand correction is required if the drawing(	ce. See 37 CFR 1.85(a). s) is objected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119		·			
12) Acknowledgment is made of a claim for for a) All b) Some * c) None of:  1. Certified copies of the priority document of the copies of the priority document of the certified copies of the application from the International Formula See the attached detailed Office action for the copies of the certified copies of the application from the International Formula See the attached detailed Office action for the copies of the action for the copies of the certified copies of the application from the International Formula See the attached detailed Office action for the copies of the priority document of the certified copies	uments have been received. uments have been received in Apie priority documents have been Bureau (PCT Rule 17.2(a)).	oplication No received in this National Stage			
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-9  3) Information Disclosure Statement(s) (PTO-1449 or PTO/Paper No(s)/Mail Date	48) Paper No(s	ummary (PTO-413) /Mail Date formal Patent Application (PTO-152) 			

### **DETAILED ACTION**

The following is a first action on the merits of application Serial No.10/716,280, filed November 18, 2003.

# **Priority**

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

#### Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The specification to which the oath or declaration is directed has not been adequately identified. See MPEP § 602.

### **Drawings**

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the automated manual transmission of claim 22, the automated double clutch transmission of claim 23, and the torque converter of claim 24 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

# Specification

The abstract of the disclosure is objected to because it exceeds the 150-word limit. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The disclosure is objected to because of the following informalities:

Reference to specific claims numbers in the specification (pages 3 and 4) is objected to because the claims can be amended, canceled or renumbered during prosecution rendering meaningless the original reference to claim numbers in the specification.

Appropriate correction is required.

### Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 22-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not adequately disclose how the claimed "transmission" would provide an automated manual transmission, automated double clutch transmission, or a torque converter with multiple shift elements.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 13, line 3, "the disk carrier" lacks a proper antecedent basis. There is no antecedent basis for "the first teeth", lines 15-16, or for "the second teeth", line 20. It is unclear whether the terms "load teeth" and "bearing teeth", recited in parentheses, are part of the claimed structure. Claim 13 further appears to be inaccurate in reciting that the securing ring is "axially outside the disk carrier". In claim 15, "the bearing teeth" lacks a proper antecedent since it is unclear whether bearing teeth are part of the claimed structure. In claim 16, it is unclear what is referred to by "no load teeth". In claim 17, "the load teeth" lacks a proper antecedent since it is unclear whether load teeth are part of the claimed structure. There is no

antecedent basis for "each third load tooth", recited in claim 18. In claim 19, it is unclear what is meant by "a dilatoin" of the disk carrier. In claim 20, "the load teeth" (line 3) lacks a proper antecedent since it is unclear whether load teeth are part of the claimed structure. In claim 22, it is unclear whether "a motor clutch", recited I line 4, is the same motor clutch as that defined in line 3. Similarly, it is unclear whether "a motor clutch", recited in line4 of claim 23, is in addition to the two motor clutches already called for in line 3. In claim 24, it is unclear whether the terms in parentheses are part of the claimed invention.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

#### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 13,15-18, and 22-24, insofar as definite, are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Okada et al. ('948). The Okada et al. device is a clutch for use in a transmission, the clutch including a disk carrier 42, having disk-facing axial grooves 42a and axial projections 42a1. A hub is connected at one end via a drive plate 56 having teeth received in radial recesses formed by cutout portions 60. The teeth 56c lie against the cutout portions and are supported against axial movement by securing ring 62. Okada et al. state that tooth 56c is sandwiched between the ring 62 and cutout surface 60b and states that any clearance is kept at a "minimum value" to prevent collision contact. This is seen to teach providing no clearance, but it would have at least been obvious to provide no clearance in order to eliminate any collision contact noise, as taught by Okada et al. The teeth 56a in Okada et al. can be considered bearing or load teeth, as called for in claims 15-18, insofar as the terms are defined. The statements of intended use in claims 22-24 do not carry patentable weight and are considered to be met by

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Okada et al. since the Okada et al. device is capable of use in the various transmissions recited.

Claims 14, 19, and 20, insofar as definite, are rejected under 35 U.S.C. 103(a) as being obvious over Okada et al. ('948) in view of Schmidt et al. (US 2004/0060795 A1).

The applied reference to Schmidt et al. has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2). Note, too, that applicants cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers

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has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15. Claim 14 calls for the cutouts being centrally located in the axial projections of the disk carrier. This does not appear to be the case in Okada et al. Schmidt et al., however, shows a similar disk carrier having cutouts 134 centrally located in the axial projections of the carrier. It would have been obvious to so dispose the cutouts in Okada et al., the motivation being to facilitate manufacture of the carrier and provide more points of engagement of the carrier and the drive plate. Note that Schmidt et al. also teach providing the widened teeth on the drive plate for alignment and temperature variation compensation.

Claim 21, insofar as definite, is rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al. ('948) in view of Tanaka et al. ('474). Claim 21 calls for welding the drive plate to the hub. This does not appear to be disclosed in Okada et al. Tanaka et al. disclose a disk carrier drive plate 1 and a hub 2, wherein the two are connected by welding (see column 2, lines 58-59). It would have been obvious to use this well-known technique to connect the disk carrier in Okada et al. to the hub, the motivation being to provide a secure connection.

### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Farrell('782) shows a similar disk carrier, and Wodrich et al.('949) is cited for its teaching of welding the drive plate to a hub (see Fig. 3).

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Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Rodney H. Bonck whose telephone number is (703)-

308-2904. The examiner can normally be reached on Monday-Friday 7:00AM -

3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Charles A. Marmor can be reached on (703)-308-0830. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Rodney H. Bonck

Primary Examiner Art Unit 3681

February 3, 2005